PRODUCT BULLETIN
GYPSUM PRODUCTS

BULLETIN REVISION REQUEST

RED-E-MIX PLASTER

BULLETIN NO: P-6
DATE:
PAGE: 1 of
CANCELS: P-6
DATE: 2/8/60

PRODUCING PLANTS: ANTIOCH AND SEATTLE

FORMULA:

(Per Mixer Batch)		SEATTLE	ANTIOCH
Stucco (Type 2A)	(S-3)	860-910 lbs.	960-1040 lbs.
Perlite	(RM-B8A)	22-1/2 c.f.	25 c.f.
Additives (Lbs./Ton Stucco)			
Aluminum Sulfate	(RM-P1)	4	4
Hydrated Lime	(RM-P3)	6-1/4	6-1/4
Wetting Agent, Type A	(RM-B14)	0-0.35	0-0.35
Lignin	(RM-B7)	0-1.5	0-1.5
Wood Fiber	(RM-P5)	1.0	1.0
Retarder	(K-1)	As required	As required
Flour	(RM-B11B)	0-2	0-2

NOTES: 1. Adjust stucco weight per batch within specified limits as required to meet mortar consistency and density specifications.

2. Use Dolomitic or Hi Calcium lime as required to maintain proper mortar consistency and flow test results.

3. Adjust lignin and wetting agent usage as required to maintain proper mortar consistency, flow test, and wet density results.

4. Flour is to be used only in the event that mortar consistency drops below 62% and other formula adjustments above are inadequate to correct the mortar consistency requirement. (Report the amount used on the Monthly Summary Report with a separate notation as to why the flour was required.)

NOTES: 5. Unfibered Red-E-Mix may be shipped on special request from Sales by omitting the wood fiber and using Unfibered Red-E-Mix plaster bags.

RAW MATERIAL HANDLING:

1. Storage

All raw materials shall be stored in a cool, clean, dry area to prevent contamination and moisture pick-up.

2. Additive Pre-Mixing

Aluminum sulfate and hydrated lime may be pre-mixed in ratios indicated for use and stored in containers. Pre-mix no more than will be used in one week.

3. Additive Screening

a. Retarder and lignin shall be screened through a 30 mesh screen just prior to use.

b. Do not use any additives which are lumpy without screening through a 30 mesh screen. Discard pre-mixed additives which have become lumpy upon storage.

4. Wood Fiber

Wood fiber shall be dried to a maximum free water content of 15% prior to use.

OPERATING SPECIFICATIONS:

1. Calibration

a. Additives Scales. The additive scales shall be calibrated and tested daily to assure proper functioning. Scales used for retarder shall be accurate to within ± 1 oz. of the formula requirement. Wetting agent and other additives used in less than 1/2 lb. per batch (except for wood fiber) shall be weighed on a gram balance to within ± 5 grams. Other additive scales shall be accurate to within ± 2 oz. of the formula requirement.

OPERATING SPECIFICATIONS: (Contd.)

1. Calibration (Contd.)

   b. Weigh Hopper. The stucco weigh hoppers shall be calibrated and adjusted to insure batch weight uniformity to within ± 2%. Once per month, minimum, the actual weigh hopper delivery shall be determined by weighing the total batch weight of five individual batches of hardwall plaster using the amount of stucco normally required per batch of Red-E-Mix plaster. This hardwall plaster should be produced during normal mixing operations. Maintain record of the test results.

   c. Perlite Hopper. The volume delivery of the perlite hopper shall be held constant within ± 0.5 cubic foot per batch.

   d. Bag Weights. Bag weights on individual sacker spouts shall be determined daily and records kept of the actual weights.

2. Mixing

   Red-E-Mix plaster is produced in two stages:

   a. Mix the stucco and additives, except perlite, in the Ehrsam mixer. Mixing time shall be two minutes minimum.

   b. Add the perlite to the stucco-additive blend from the constant volume hopper. Mix for 45 to 60 seconds and discharge the batch to the sacker.

3. Inspection

   a. Weigh Hopper. The weigh hopper gate shall be checked daily for leakage. Check the gate during manufacturing of the first batch produced and again as soon as the equipment warms up.

   b. Mixer Gate. The mixer gate shall be checked daily for leakage. Check the gate during manufacturing of the first batch produced and again as soon as the equipment warms up.

OPERATING SPECIFICATIONS: (Contd.)

4. Bags

Bags shall have _____ plies including one asphalt coated ply. Bag dimensions shall be _____" x _____" x _____". The minimum bag strength shall be _____ lbs. (Note: Bags used for export shipments shall have _____ plies including one asphalt lined ply.)

PRODUCT SPECIFICATIONS:

Mortar Consistency (cc's)	64 - 71
Wet Density (lbs./c.f.)	65 - 72
Flow Test (sec.)	__ - __
Normal Consistency - A.S.T.M. (%)	58 - 63
Dry Density (lbs./c.f.)	45 - 55
Compressive Strength (psi)	600 minimum
Plus 16 mesh (c.c.)	30 maximum
Rate of Suction (sec.)	150 minimum
Setting Time (hrs.)	5 - 10 Seattle 3 - 8 Antioch

Note: Retardation shall be adjusted as required to meet local market setting time preference and seasonal weather conditions.

REQUIRED TESTS:

A. Perlite

1. Antioch. During manufacture of perlite for use in Red-E-Mix, take a sample from the perlite cyclone discharge to the expanded perlite bin once per two hours. Test for density and size gradation including the 16, 20, 30, 50 and 100 mesh screens.

2. Seattle. Three representative samples from each carload shipment of expanded perlite shall be acquired from the supplier.

REQUIRED TESTS: (Contd.)

2. Seattle. These samples are to be taken during the sacking operation directly from the supplier's perlite sacker. Test each sample for density and size gradation including the 16, 20, 30, 50 and 100 mesh screens.

B. Plaster - Antioch and Seattle

1. Presence of Retarder. Check samples from each mixer batch with phenolphtalein for presence of retarder.

2. Time of Set. Test every 10th batch, minimum, for setting time.

3. Mortar Consistency and Flow Test. Take thief samples from a full bag of Red-E-Mix plaster representating each 10 tons of Red-E-Mix plaster produced per day (or minimum one sample per day) and test for mortar consistency, wet density, flow test and plus 16 mesh test.

4. Compressive Strength. Prepare a composite of thief samples of a shipment of the slowest set formula produced during a week and test for A.S.T.M. normal consistency, dry density and dry compressive strength.

The above outlined testing schedule is a minimum program only. More frequent tests are required when the plaster test results are erratic, variable, and for any reason questionable.